

Listing of the Claims:

This listing of claims will replace all prior versions, and listing of claims in the application:

1. Canceled.

2. (Currently Amended) A method as recited in claim 16 4, wherein said converting comprises:

constructing a Constant Pool index into a Constant Pool associated with the a Java compliant Load Constant command;

reading the appropriate structures of the Constant Pool index based on the constructed Constant Pool index;

determining the corresponding Constant Value; and

writing a representation of the determined constant value into one or more Java bytecodes of a stream of Java bytecodes.

3. (Original) A method as recited in claim 2, wherein said converting further comprises:

fetching a first bytecode of a Constant Pool index associated with the Java Load Constant command;

fetching a second bytecode of the Constant Pool index associated with the Java Load Constant command; and

wherein said constructing of the Constant Pool index into a Constant Pool operates to determine an index based on said fetching of the first and the second bytecodes.

4. Cancelled.

5. (Currently Amended) A method as recited in claim 3 4, wherein ~~the representation~~ of the Java Load Constant command represents a numeric constant value.

6-13 Cancelled.

14. (Currently Amended) A method as recited in claim ~~16~~¹³, wherein the method further comprises:

- determining how many bytecodes represent data associated with the a Java **compliant** Load Constant command;

- incrementing a pointer to the a Java code stream; and

- incrementing a pointer to the a Java data stream.

15. (Original) A method as recited in claim 14, wherein said execution of the Java Load Constant command operates to push a constant value on a stack.

16. (New) A method of executing a Load Constant instruction by a virtual machine, the method comprising:

- receiving a class file for execution by the virtual machine, the class file including a first Load Constant command which is represented as one or more bytecodes in a single stream;

- reading, at load time, a constant pool in the class file;

- determining, at load time, a Constant Pool index into the Constant Pool for the first Load Constant command;

- reading, at load time, the appropriate structures of the Constant Pool index based on the determined Constant Pool index;

- determining, at load time, the corresponding Constant Value;

- converting, at load time, the first Load Constant command in the single stream to a representation of the Load Constant command in a pair of bytecode streams which is loaded inside the virtual machine prior to runtime, the pair of bytecode streams consisting of:

- a code stream for storing only code and having one or more bytecodes representing the first Load Constant command in the class file as an internal command inside the virtual machine, and

- a data stream for storing only data with one or more bytecodes representing data associated with the internal command inside the virtual machine;

- writing the Constant Value into the data stream in the virtual machine without modifying the constant pool, thereby allowing the constant value to be determined without having to load the constant pool in the virtual machine;

writing the Load Constant command into the code stream in the virtual machine;
reading at runtime the Load Constant command in the code stream inside the virtual machine;

retrieving at runtime the Load Constant value in the data stream inside the virtual machine; and

executing at runtime the Load Constant command in the code stream by using the constant value in the data stream, thereby allowing the Load Constant command to be executed without processing the constant pool at runtime or having to load the constant pool in the virtual machine.

17. (New) A method as recited in claim 16, wherein the load constant command is a Java compliant Load Constant command.

18. (New) A virtual machine for executing a Load Constant instruction, wherein the virtual is capable of:

receiving a class file for execution by the virtual machine, the class file including a first Load Constant command which is represented as one or more bytecodes in a single stream;

reading, at load time, a constant pool in the class file;

determining, at load time, a Constant Pool index into the Constant Pool for the first Load Constant command;

reading, at load time, the appropriate structures of the Constant Pool index based on the determined Constant Pool index;

determining, at load time, the corresponding Constant Value;

converting, at load time, the first Load Constant command in the single stream to a representation of the Load Constant command in a pair of bytecode streams which is loaded inside the virtual machine prior to runtime, the pair of bytecode streams consisting of:

a code stream for storing only code and having one or more bytecodes representing the first Load Constant command in the class file as an internal command inside the virtual machine, and

a data stream for storing only data with one or more bytecodes representing data associated with the internal command inside the virtual machine;

writing the Constant Value into the data stream in the virtual machine without modifying the constant pool, thereby allowing the constant value to be determined without having to load the constant pool in the virtual machine;

writing the Load Constant command into the code stream in the virtual machine;

reading at runtime the Load Constant command in the code stream inside the virtual machine;

retrieving at runtime the Load Constant value in the data stream inside the virtual machine; and

executing at runtime the Load Constant command in the code stream by using the constant value in the data stream, thereby allowing the Load Constant command to be executed without processing the constant pool at runtime or having to load the constant pool in the virtual machine.

19. (New) A virtual machine as recited in claim 18, wherein said virtual machine is further capable of:

constructing a Constant Pool index into a Constant Pool associated with the Load Constant command;

reading the appropriate structures of the Constant Pool index based on the constructed Constant Pool index; and

determining the corresponding Constant Value.

20. (New) A virtual machine as recited in claim 18, wherein said virtual machine is further capable of:

fetching a first bytecode of a Constant Pool index associated with the Load Constant command;

fetching a second bytecode of the Constant Pool index associated with the Load Constant command; and

wherein said constructing of the Constant Pool index into a Constant Pool operates to determine an index based on said fetching of the first and the second bytecodes.

21. (New) A virtual machine as recited in claim 18, wherein the load constant command is a **Java compliant** Load Constant command.

22. (New) A virtual machine as recited in claim 18, wherein said virtual machine is further capable of:

- determining how many bytecodes represent data associated with the Load Constant command;

- incrementing a pointer to the code stream; and

- incrementing a pointer to the data stream.

23. (New) A virtual machine as recited in claim 18, wherein said execution of the Load Constant command operates to push a constant value on a stack.

24. (New) A computer readable medium including at least computer program code for executing a Load Constant instruction, comprising:

- computer program code for receiving a class file for execution by the virtual machine, the class file including a first Load Constant command which is represented as one or more bytecodes in a single stream;

- computer program code for reading, at load time, a constant pool in the class file;

- computer program code for determining, at load time, a Constant Pool index into the Constant Pool for the first Load Constant command;

- computer program code for reading, at load time, the appropriate structures of the Constant Pool index based on the determined Constant Pool index;

- computer program code for determining, at load time, the corresponding Constant Value;

- computer program code for converting, at load time, the first Load Constant command in the single stream to a representation of the Load Constant command in a pair of bytecode streams which is loaded inside the virtual machine prior to runtime, the pair of bytecode streams consisting of:

- a code stream for storing only code and having one or more bytecodes representing the first Load Constant command in the class file as an internal command inside the virtual machine, and

- a data stream for storing only data with one or more bytecodes representing data associated with the internal command inside the virtual machine;

computer program code for writing the Constant Value into the data stream in the virtual machine without modifying the constant pool, thereby allowing the constant value to be determined without having to load the constant pool in the virtual machine;

computer program code for writing the Load Constant command into the code stream in the virtual machine;

computer program code for reading at runtime the Load Constant command in the code stream inside the virtual machine;

computer program code for retrieving at runtime the Load Constant value in the data stream inside the virtual machine; and

computer program code for executing at runtime the Load Constant command in the code stream by using the constant value in the data stream, thereby allowing the Load Constant command to be executed without processing the constant pool at runtime or having to load the constant pool in the virtual machine.

25. (New) A computer readable medium as recited in claim 24, wherein the load constant command is a Java compliant Load Constant command.

26. (New) A computer readable medium as recited in claim 24, wherein the computer readable medium further comprises:

computer program code for determining how many bytecodes represent data associated with the Load Constant command;

computer program code for incrementing a pointer to the code stream; and

computer program code for incrementing a pointer to the data stream.

27. (New) A computer readable medium as recited in claim 24, wherein the computer readable medium further comprises:

computer program code for fetching a first bytecode of a Constant Pool index associated with the Load Constant command;

computer program code for fetching a second bytecode of the Constant Pool index associated with the Load Constant command; and

wherein said constructing of the Constant Pool index into a Constant Pool operates to determine an index based on said fetching of the first and the second bytecodes.